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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,658	11/09/2000	Nicholas Sheppard Bromer		3157

7590 11/21/2003
Nicholas Bromer
402 Stackstown Road
Marietta, PA 17547

EXAMINER

DRUAN, THOMAS J

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 11/21/2003

21

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/708,658

Applicant(s)

BROMER, NICHOLAS SHEPPARD

Examiner

Thomas J. Druan, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to Applicant's amendment received on 23 August 2003.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

2. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,653,373 to Gerber.

Gerber discloses the invention as claimed including a blade 10 comprising a thin plate 32 deposited on a specular surface of a substrate 30, wherein the substrate is beveled toward a cutting edge 40 that comprises the plate. The plate is on a single side of the blade, and is harder than the substrate (column 3, lines 16-20). The substrate is made specular by use of a grinding wheel 43 (grinding creates a roughness as small as 500 Angstroms according to the included Roughness Height table). The plate has a thickness of 100 μ m, which is on the order of a micron.

Claim Rejections - 35 USC § 103

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gerber in view of 5,077,901 to Warner et al.

Gerber discloses the invention substantially as claimed, but uses a titanium nitride plate instead of a ceramic plate. Warner et al. teaches the use of

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a ceramic plate 70 deposited on a metal substrate 80 in order to provide a cutting edge that provides a hard, non-porous cutting edge (column 1, line 46 – column 2, line 9). Therefore, it would have been obvious to one skilled in the art at the time of the invention to make the plate of Gerber out of ceramic in order to provide a hard, non-porous cutting edge.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gerber in view of US 1,607,083 to Ignatieff.

Gerber discloses the invention substantially as claimed, but lacks a substrate comprising a base portion of a first material and a surface portion of a second material that is harder than the first material and less hard than the plate material. Ignatieff teaches the use of multiple layers 5-11 of increasing hardness from the base portion to the cutting edge in order to correspond to the stress and wear of respective layers. Therefore, it would have been obvious to include multiple layers of hardness in the blade of Gerber in order to provide a gradient of appropriate materials to compensate for the increasing stress and wear of the blades layers as they approach the cutting edge.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerber in view of Ignatieff in further view of US 5,630,275 to Wexler.

Gerber in view of Ignatieff discloses the invention substantially as claimed, but lacks a second layer made of either chromium or glass. Wexler teaches the use of multiple layers of a blade comprising a variety of different materials, including

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chromium or glass (silicon dioxide) combined with other materials of differing hardnesses in order to provide enhanced durability (column 4, lines 32-67).

Response to Arguments

6. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ikegaya et al. is cited to show an example of a cutting tool made by deposition onto a substrate with a mirror-finish.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Druan, Jr. whose telephone number is 703-308-4200. The examiner can normally be reached on M-F (8:30-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 703-308-1082. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

tjd
tjd

November 17, 2003

Boyer Ashley
BOYER ASHLEY
PRIMARY EXAMINER